

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A communication circuit, comprising:
a first transceiver circuit;
a second transceiver circuit;
an integrated transformer having a single core, an input coil, a first output coil, and a second output coil,
wherein the input coil is configured to be coupled to a signal source, the first output coil is coupled to the first transceiver circuit, and the second output coil is coupled to the second transceiver circuit;
a first bandpass filter coupled between the first output coil and the first transceiver circuit that is configured to pass only a first frequency range; and
a second bandpass filter coupled between the first output coil and the second transceiver circuit that is configured to pass only a second frequency range.
2. (Original) The communication circuit of claim 1, wherein the first transceiver circuit includes an ADSL codec.
3. (Original) The communication circuit of claim 2, wherein the second transceiver circuit includes a LAN codec.
4. (Original) The communication circuit of claim 3, wherein the second transceiver circuit includes a home LAN codec.
5. (Original) The communication circuit of claim 1, wherein the single core is configured to operate in a plurality of frequency ranges.
6. (Original) The communication circuit of claim 5, wherein the first frequency range includes frequencies between 20 kHz and 1.1 MHz and the second frequency range includes frequencies between 4.5 MHz and 10 MHz.

7. (Previously presented) The communication circuit of claim 1, wherein the first bandpass filter is configured to pass only ADSL frequencies and the second bandpass filter is configured to pass only LAN frequencies.

8. (Previously presented) The communication circuit of claim 7, wherein the first bandpass filter is configured to pass only frequencies between 20 kHz and 1.1 MHz and the second bandpass filter is configured to pass only frequencies between 4.5 MHz and 10 MHz.

9. (Previously presented) The communication circuit of claim 7, further comprising a substrate having the transformer and the first and second bandpass filters disposed thereon.

10. (Previously presented) A transformer for use in an integrated ADSL/LAN system, comprising:

an integrated core;

an integrated first circuit coupled to the core and coupleable to a signal source configured to receive an input signal from the signal source, wherein the input signal includes an ADSL signal and a LAN signal;

an integrated second circuit coupled to the core configured to receive the ADSL signal;

an integrated third circuit coupled to the core configured to receive the LAN signal;

an integrated first bandpass filter coupled to the integrated second circuit that is configured to pass only an ADSL frequency range; and

a second bandpass filter coupled to the integrated third circuit that is configured to pass only a LAN frequency range.

11. (Canceled)

12. (Previously presented) The transformer of claim 10, wherein the ADSL frequency range includes frequencies between 20 kHz and 1.1 MHz and the LAN frequency range includes frequencies between 4.5 MHz and 10 MHz.

13. (Original) The transformer of claim 10, wherein the second circuit is configured to provide the ADSL signal to an ADSL codec.

14. (Original) The transformer of claim 13, wherein the third circuit is configured to provide the LAN signal to a LAN codec.

15. (Canceled)

16. (Original) The transformer of claim 10, wherein the first circuit, second circuit, and third circuit each include a coil of wire surrounding the core.

17. (Previously presented) A transformer circuit, comprising:

means for providing a path for a magnetic field;

means for receiving an input signal from a signal source, wherein the input signal includes an ADSL signal and a LAN signal;

first means for receiving the input signal via the magnetic field path and filtering the signal to pass only ADSL frequencies; and

second means for receiving the input signal via the magnetic field path and filtering the signal to pass only LAN frequencies,

wherein the transformer circuit is integrally formed as part of an integrated ADSL/LAN system.

18. (Original) The transformer of claim 17, wherein the means for providing a path includes a transformer core.

19. (Original) The transformer of claim 17, wherein the means for receiving an input signal includes an RJ11 jack.

20. (Original) The transformer of claim 17, wherein the means for providing a path includes means for operating in a plurality of frequency ranges, wherein a first frequency range includes an ADSL frequency and a second frequency range includes a LAN frequency.

21. (Original) The transformer of claim 20, wherein the first frequency range includes frequencies between 20 kHz and 1.1 MHz and the second frequency range includes frequencies between 4.5 MHz and 10 MHz.

22. (Previously presented) The transformer of claim 17, wherein the means for receiving an input signal, the first means and the second means each includes a coil of wire having plurality of turns.

23. (Previously presented) A communication circuit for home use, comprising:
an ADSL transceiver circuit;
a first filter coupled to the ADSL transceiver circuit that passes only ADSL frequencies;
a LAN transceiver circuit;
a second filter coupled to the LAN transceiver circuit that passes only LAN frequencies; and
an integrated transformer comprising:
an input coil coupled to a signal source that provides an input signal comprised of ADSL and LAN frequencies;
a first output coil configured to provide the input signal to the first filter; and
a second output coil configured to provide the input signal to the second filter, wherein the communication circuit is integrated into a computing device.

24. (Canceled)

25. (Previously presented) The communication circuit of claim 23, wherein the LAN transceiver circuit is a Home LAN transceiver circuit.

26. (Canceled)

27. (Previously presented) The communication circuit of claim 23, further comprising a substrate having the transformer and the first and second filters disposed thereon.

28. (Previously presented) The communication circuit of claim 23, wherein the ADSL transceiver circuit includes an ADSL codec.

29. (Original) The communication circuit of claim 23, wherein the transformer includes a core configured to operate in a plurality of frequency ranges, wherein a first frequency range includes an ADSL frequency and a second frequency range includes a LAN frequency.

30. (Currently amended) ~~The A~~ communication circuit ~~of claim 1, and further~~ comprising:

a first transceiver circuit;

a second transceiver circuit;

an integrated transformer having a single core, an input coil, a first output coil, and a second output coil,

wherein the input coil is configured to be coupled to a signal source, the first output coil is coupled to the first transceiver circuit, and the second output coil is coupled to the second transceiver circuit;

a first bandpass filter coupled between the first output coil and the first transceiver circuit that is configured to pass only a first frequency range;

a second bandpass filter coupled between the first output coil and the second transceiver circuit that is configured to pass only a second frequency range;

a first subtraction circuit comprising a transformer having a first coil in series between the first output coil of the integrated transformer and the first filter and a second coil in parallel across output terminals of the second filter; and

a second subtraction circuit comprising a transformer having a first coil in series between the second output coil of the integrated transformer and the second filter and a second coil in parallel across output terminals of the first filter.